



Using Free Software Doesn't Mean It Won't Cost Anything



Each month Kent Bingham, our cover artist, provides us with at least three ideas as we plan a given issue's cover. One of Kent's ideas for this month was a selection of soups with the caption, "There really is a free lunch." As I thought about this option, I was worried how many of our readers would get this same idea regarding open source software. When deliberating using open source software, the user needs to understand that there are still costs that must be considered.

As with contemplating any new software product, the requirements for the software must be compared with its benefits and costs. Match your requirements with the software capabilities. If its features don't match all your requirements, you must decide if these are truly hard requirements or something you can live without. If they are hard requirements, are you prepared to develop the features yourself and add them to the software? What will it cost you to develop these required software upgrades? What will it cost to maintain your add-ons with each new upgraded software release? If the software is a tool that your organization will use to develop software, is the tool adequately documented so that the learning curve is reasonable? Are you willing to abide by the licensing agreement to share your improvements with the software sustainers?

We start this month's issue of CROSSTALK with an important policy released by the U.S. Air Force (USAF). As Michael R. Nicol explains in the abstract, the USAF believes we need to apply a renewed focus to software development and acquisition as we continue to work more with systems. The USAF plans to supplement the policy in future months with additional guidance, training, and other tools to support its successful implementation.

We begin our theme articles with an overview of open source software by David Tuma. In *Open Source Software: Opportunities and Challenges*, Tuma expands on the idea that while open source software has some great advantages, the user needs to be aware of challenges when deciding whether or not to use it.

In *Open Source Opens Opportunities for Army's Simulation System*, Douglas J. Parsons and Dr. Robert L. Wittman Jr. discuss their own twist to open source software. The OneSAF program has proven beneficial to the defense community and has even won the U.S. Government's Top 5 Quality Software Projects award. In this article, we learn that the software is being made available to the defense community and others who may have a valid need for it. However, given the military requirements, following all the defined requirements for open source software is not feasible.

Jonathan E. Shuster discusses another open source software product in *Introduction to the User Interface Markup Language*. This variation of the User Markup Language is available to the community and might meet your requirements.

We finish Hoyt Lougee's discussion on reuse in this issue with his follow-up article, *DO-178B Certified Software: A Formal Reuse Analysis Approach*. If you read Lougee's previous article last month, then you will know that the techniques discussed are applicable not only to DO-178B, but also are good overview ideas for any software reuse effort.

We conclude this issue with an Open Forum article by Michelle Levesque and Jason Montojo. In *Opening Up Open Source*, Levesque and Montojo bring to the forefront some of the difficulties encountered when trying to make full use of open source software.

As these articles show, open source software provides the opportunity for enhancing your own software without significant cost, but it is still not a free lunch. There are costs associated with deciding if the software meets your needs and enhancing it to implement missing features. It is also possible that a lack of documentation and training will hinder using the software effectively. As with any tool, open source software can make software development a less strenuous and expensive task if it is used with the proper expectations and oversight.

As we begin this new year, I would also like to thank CROSSTALK's Editorial Board (CEB), most of whom donate their time to help make CROSSTALK the best it can be. These reviewers strive to provide the authors with useful comments that will strengthen the articles and make them useful for our readers. A list of CEB members can be found on page 30.

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